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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/576,720	05/23/2000	John J. Burns	FEL-001P	3128
7590	04/20/2005			
J M Robertson 233 South Pine Street Spartanburg, SC 29302			EXAMINER BEFUMO, JENNA LEIGH	
			ART UNIT	PAPER NUMBER
			1771	
DATE MAILED: 04/20/2005				

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/576,720
Filing Date: May 23, 2000
Appellant(s): BURNS ET AL.

MAILED
APR 19 2005
GROUP 1700

James M. Robertson
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed February 11, 2005.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4) *Status of Amendments After Final*

No amendment after final has been filed.

(5) *Summary of Claimed Subject Matter*

The summary of claimed subject matter contained in the brief is correct.

(6) *Grounds of Rejection to be Reviewed on Appeal*

The appellant's statement of the grounds of rejection is correct.

(7) *Claims Appendix*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) *Evidence Relied Upon*

The following is a listing of the evidence (e.g., patents, publications, Official Notice, and admitted prior art) relied upon in the rejection of claims under appeal.

6,287,407	STEIN et al.	9-2001
3,683,921	BROOKS et al.	8-1972

(9) *Grounds of Rejection*

The following grounds of rejection are applicable to the appealed claims:

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I. Claims 25 – 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stein et al. (6,287,407 B1) in view of Brooks et al. (3,683,921).

Stein is concerned with the creation of a nonwoven composite structure comprising a plurality of layers of needle-punched nonwoven fabric (abstract). Said composite comprising an adhesive nonwoven layer disposed between outer nonwoven layers (col. 2, lines 9-18). Stein further teaches mechanical entanglement (col. 3, lines 52-54). Stein is silent with respect to the length of the fibers.

Brooks is concerned with the creation of a nonwoven composite structure comprising a plurality of layers of nonwoven fabric, wherein said composite is bonded by both an adhesive fabric and mechanical entanglement (col. 8, lines 63-65). Brooks teaches the desirability of staple fibers (col. 3, lines 26-27). It would have been obvious to a person having ordinary skill in the art to utilize staple fibers in Stein's composite. Such a combination would have been motivated by the desire to successfully practice the invention of Stein.

Stein does not expressly teach a plurality of adhesive layers. Stein does, however, teach that "at least" two layers are used, implying that multiple layers can be added to the composite (abstract). Brooks teaches that multiple layers of adhesive fabrics may be used in such composites (col. 4, lines 16-24). It would have been obvious to a person having ordinary skill in the art to add multiple layers to the composite of Stein. Such an addition would have been motivated by the desire to create a heavier weight composite (col. 3, lines 1-6).

Stein is silent with respect to the thickness and density of the composite. It would have been obvious to a person having ordinary skill in the art to increase the thickness by the desire to increase the absorbent capability of the composite. Similarly, it would have been obvious to

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modify the density of the composite in order to optimize the absorbent properties of the composite.

Stein is silent with respect to the composition and denier of the fibers. Brooks teaches applicant's claimed polymers and denier (col. 3, lines 10-16 and 53-60., col. 4, lines 53-62).

Stein teaches the use of a nonwoven fabric, but doesn't specify the structure of the fabric. Brooks teaches an adhesive fabric comprising a nonwoven scrim netting (col. 4, lines 51 and 65). It would have been obvious to a person having ordinary skill in the art to utilize the scrim material of Brooks as the nonwoven fabric of Stein. Such a modification would have been motivated by the desire to use a fabric that allows fibers of the outer layers to easily penetrate it and thereby increasing the bonding strength of the composite. Activation of a meltable scrim would inherently create a discontinuous bonding pattern.

With respect to claim 32, Brooks teaches the intersections of the filaments of the scrim to be integral, which is an identical structure to a spunbond material.

(11) Response to Argument

I. The applicant argues that Stein et al. teaches away from multi-layer intermingling which is recited in the independent claims (Appeal Brief, pages 4 – 6). Further, the applicant argues that Stein et al. teaches away from the present invention by teaching that the fibers are needled into the reverse side of the fabric to create a sharp pattern and would not be mixed with the fibers of the different layer (Appeal Brief, page 5).

The claim recites that “the fiber elements in adjacent layers of the nonwoven fiber material are intermingled with one another”. To meet this limitation the fibers in one layer must be forced or pushed into an adjacent layer in any manner. Stein et al. discloses that the multi-

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layered fabric is needed to push fibers from one layer into the adjacent layer. As shown in Figure 1, the fibers in the top layer are pushed into and through the bottom layer. Hence, fibers in the top layer are intermingled with the fibers in the bottom layer.

Even though the fibers of the top layer are bunched together in the bottom layer to form a sharp pattern, the structure disclosed by Stein et al. still meets the claim limitation. The fibers of the top layer are mixed into the bottom layer in some degree. Hence, the structure taught by Stein et al. reads on the recitation that the fibers of the adjacent layers are intermingled with one another. The claim does not require that the fibers are uniformly blended together nor does the claim exclude the fibers from being pushed through to create a pattern on the opposite surface. In fact, the claim does not define how the fibers are mixed together, but only requires that fibers from the different layers be intermingled. Thus, the rejection is maintained. For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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April 14, 2005

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